1. An adjustment mechanism for a tool used on a machine, said machine having a drive spindle for connection to said tool, said tool having a plurality of abrasive elements mounted on the tool for radial movement with respect to the tool, said adjustment mechanism comprising:

an adjustment assembly mounted within said tool in engagement with said abrasive elements to convert an axial force to a radial force to actuate said radial movement of the abrasive elements;

a chamber formed in said tool;

a fluid connection for supplying fluid under pressure to said chamber;

a piston mounted for axial movement in said chamber, wherein said fluid acts on said piston to provide axial movement thereof, wherein said piston is mounted to rotate as it moves axially;

an adjustment rod mounted within said tool and connected to said piston in a manner which transmits only rotary motion to said adjustment rod in response to movement of said piston;

rotation limiting means mounted in said tool for engagement with the adjustment rod to allow rotation thereof in a single rotational direction, said rotational direction causing expansion of the abrasive elements; and

wherein said adjustment rod is connected to the adjustment assembly by means which convert the rotation of the adjustment rod to an axial force to actuate radial movement of the abrasive elements.

2. An adjustment mechanism for a tool, according to claim 1, wherein said piston is rotated through the interaction of a drive mechanism connected between said chamber and said piston, said drive means imparting a rotary motion to said piston in response to axial movement of said piston;

3. An adjustment mechanism for a tool, according to claim 1, wherein said rotation limiting means comprises a clutch.

4. An adjustment mechanism for a tool, according to claim 3, wherein said adjustment rod comprises an upper adjustment rod and a lower adjustment rod, connected at an intermediate position by said clutch, said upper adjustment rod being connected to the piston and said lower adjustment rod connected to said adjustment assembly.

5. An adjustment mechanism for a tool, according to claim 4, wherein said clutch further comprises:

a transmission shaft;

a first friction clutch connected to said upper adjustment rod and adapted to engage said

transmission shaft to cause rotation thereof upon rotation of said upper adjustment rod in said single rotational direction; and

a second friction clutch connected to said transmission shaft to allow free rotation of said lower adjustment rod in said single rotational direction; and

wherein, during reverse movement of said piston, said second friction clutch engages said tool to prevent rotation of said transmission shaft in a direction in reverse of said single rotational direction and said first friction clutch releases said transmission shaft to disconnect said shaft from said upper adjustment rod.

6. An adjustment mechanism for a tool, according to claim 1, wherein the adjustment rod is connected to said adjustment assembly by means of mutually engaging threads which convert the rotation of the adjustment rod to axial movement of said adjustment assembly.

7. An adjustment mechanism for a tool, according to claim 2, wherein said drive mechanism comprises:

a helical slot constructed in the outer surface of said piston; and

a pin fixed to said chamber to engage said helical slot, said pin acting to force said piston to rotate during axial movement thereof.

8. An adjustment mechanism for a tool, according to claim 1, wherein said adjustment rod is connected to said piston by means of an axially extending opening constructed in said piston to receive the upper end of said adjustment rod and a pin which extends transverse to an axis of the adjustment rod, through said upper end of the adjustment rod within said slot, wherein said piston is free to move axially on said adjustment rod, but is locked to said adjustment rod for transmitting rotary motion thereto.